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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,730	03/08/2002	Steven J. Catani	15117.0090	7337

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EXAMINER

KRISHNAN, GANAPATHY

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 06/17/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,730

Applicant(s)

CATANI ET AL.

Examiner

Ganapathy Krishnan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 18-21, 29-35, 46-49 and 62-74 is/are allowed.
- 6) ☒ Claim(s) 14-17, 22-28, 36-45, 50-59 and 75-86 is/are rejected.
- 7) ☒ Claim(s) 60 and 61 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.                      6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-17, 22-28, 36-39, 85 and 86 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14-17 recite, "said dissolving step is repeated three, four, five and more than five times" respectively. According to Claim 13 from which Claims 14-17 depend, in step 13(c) the claim just recites dissolving the said sucralose to obtain a solution of sucralose. It is not clear what is meant by "dissolving step is repeated". It is unclear if repetition means adding more sucralose. Clarification is needed.

The term "substantially" in claim 22(d) is a relative term that renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 23 recites, "non-crystalline" extraction steps. It is not clear what this means. If applicants intend a non-crystallization step then the claim has to be restated.

Claims 36-39 which depend from Claim 35, recite "said crystallization procedure performed three, four, five and more than five times" respectively. According to Claim 35

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crystallization is performed at two different steps (35b and 35d). It is not clear if either one or both are intended in claims 36-39.

In Claims 85 and 86 it is not clear what "does not modify the sweetness" means.

Claims which depend from a rejected base claim that is indefinite are also rendered indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 40-45 and 50-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Antenucci et al (US 5384311), Sharp et al (US 5270071).

Antenucci et al drawn to liquid concentrate compositions, disclose the use of purified sucralose as a sweetener (col. 2, lines 15-20). The liquid concentrate composition of Antenucci is an aqueous concentrate containing sodium benzoate as preservative (see examples in cols. 5 and 6). The liquid concentrate find utility in foodstuff as beverages, baked goods, preserved fruit forms, jellies and desserts (col. 3, lines 34-37). Example XIV (col. 7-8) discloses a beverage with sucralose at a concentration of 0.07% by weight.

Sharp et al disclose a strawberry jam formulation containing sucralose (col. 9, example 4).

These disclosures are deemed to meet the limitations of claims 40-45 and 50-59.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 75, 80, 85 and 86 are rejected under 35 U.S.C. 102(e) as being anticipated by over Barndt et al (US 6423358).

Barndt et al drawn to low calorie, palatable sugar substitute, disclose the use of sucralose in food and drinks (col. 1, lines 6-10, col. 2, lines 34-45 and col. 10, line 46). Barndt et al also disclose that in their examples the product made without sugar was judged acceptable and of good quality relative to the sugar control (col. 4, lines 57-59).

This disclosure of Barndt et al is deemed to meet the limitations of claims 75, 80, 85 and 86.

#### ***Joint Inventors***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 76-79 and 81-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barndt et al (US 6423358) in combination with Antenucci et al (US 5384311).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 76-79 and 81-84 are drawn to a method of enhancing the palatability of consumer product comprising the step of adding sucralose with limitations on the amounts added.

Barndt et al drawn to low calorie, palatable sugar substitute, disclose the use of sucralose in food and drinks (col. 1, lines 6-10, col. 2, lines 34-45 and col. 10, line 46).

Antenucci et al drawn to liquid concentrate compositions, disclose the use of purified sucralose as a sweetener (col. 2, lines 15-20). The liquid concentrate composition of Antenucci is an aqueous concentrate containing sodium benzoate as preservative (see examples in cols. 5 and 6). The liquid concentrate find utility in foodstuff as beverages, baked goods, preserved fruit forms, jellies and desserts (col. 3, lines 34-37). Example XIV (col. 7-8) discloses a beverage with

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sucralose at a concentration of 0.07% by weight, which is in the same range as is claimed instantly. Antenucci also discloses that there was no significant difference in the flavor, texture or quality of sweetness in the beverage (col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the prior art to use sucralose in a method to enhance the palatability of consumer product with reasonable expectation of success. It is also well within the purview of one of ordinary skill in the art to adjust concentration of sucralose in the consumer product.

One of ordinary skill in the art would be motivated to do so because sucralose is preferable on account of its stability and high quality sensory attributes (Barndt, col. 2, lines 34-37) including flavor, quality of sweetness and reduced calorie. These properties of sucralose make it ideal for use in a method for enhancing the palatability. One of ordinary skill in art would also be motivated to adjust the concentration of the sucralose in the consumer product in order to optimize the palatability of the product.

***Allowable Subject Matter***

Claims 1-13, 18-21, 29-35, 46-49 and 62-74 which are drawn to method of purifying sucralose from a crude solution using a combination of liquid-liquid extraction, extractive precipitation crystallization and recycling are seen to be free of prior art.

Claims 60 and 61 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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*Conclusion*

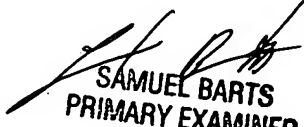
1. Claims 14-17, 22-28, 36-45, 50-59 and 75-86 are rejected.
2. Claims 1-13, 18-21, 29-35, 46-49 and 62-74 are allowable.
3. Claims 60 and 61 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 703-305-4837. The examiner can normally be reached on 8.30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

GK  
June 13, 2003

  
SAMUEL BARTS  
PRIMARY EXAMINER  
GROUP 1200